#### **COASTAL CONSERVANCY**

## Staff Recommendation February 2, 2023

#### SAN FRANCISCO ESTUARY INVASIVE SPARTINA PROJECT

Project No.: 99-054-03

Project Manager: Marilyn Latta, Erica Johnson

**RECOMMENDED ACTION:** Authorization to disburse up to \$5,400,000, including a \$400,000 grant from the Santa Clara Valley Water District, to the California Invasive Plant Council for the planning, management, treatment, monitoring, and restoration activities of the San Francisco Estuary Invasive *Spartina* Project from 2023-2024.

**LOCATION:** The baylands and lower creek channels of the nine counties that bound the San Francisco Bay.

PROGRAM CATEGORY: San Francisco Bay Area Conservancy Program

## **EXHIBITS**

Exhibit 1: Project Location

Exhibit 2: Project Photos

Exhibit 3: June 18, 2020 Staff Recommendation

Exhibit 4: Decline in invasive Spartina 2004-2022

Exhibit 5: Project Letters

## **RESOLUTION AND FINDINGS:**

Staff recommends that the State Coastal Conservancy adopt the following resolution and findings.

## Resolution:

The State Coastal Conservancy hereby authorizes the disbursement of up to \$5,400,000, including a \$400,000 grant from the Santa Clara Valley Water District, to the California Invasive Plant Council for the planning, management, treatment, monitoring, and restoration activities of the San Francisco Estuary Invasive *Spartina* Project from 2023-2024.

Prior to commencement of the project, the grantee shall submit for the review and written approval of the Executive Officer of the Conservancy (Executive Officer) the following:

- 1. A work plan, schedule and budget.
- 2. A list of identified mitigation measures.
- 3. Evidence that all necessary permits and approvals for the project have been obtained.
- 4. Names and qualifications of any contractors to be retained in carrying out the project.
- 5. A plan for acknowledgement of Conservancy funding.

In carrying out any treatment or enhancement project, Cal-IPC shall comply with all applicable mitigation and monitoring measures that are set forth in the approved site-specific plans; that are required by any permit, the applicable U.S. Fish and Wildlife Service (USFWS) Biological Opinion or any other approval for the project; or that are identified in the "Final Programmatic Environmental Impact Statement/Environmental Impact Report, San Francisco Estuary Invasive *Spartina* Project: *Spartina* Control Program" (EIS/R), adopted by the Conservancy on June 16, 2005.

Staff further recommends that the Conservancy adopt the following findings:

Based on the accompanying staff report and attached exhibits, the State Coastal Conservancy hereby finds that:

- 1. The proposed authorization is consistent with Chapter 3 of Division 21 of the Public Resources Code, regarding the Climate Ready Program.
- 2. The proposed project is consistent with the current Conservancy Project Selection Criteria.
- 3. The California Invasive Plant Council is a nonprofit organization existing under Section 501(c)(3) of the United States Internal Revenue Code.

## **PROJECT SUMMARY:**

Conservancy staff recommends that the Conservancy authorize disbursement of up to \$5,400,000, including a \$400,000 grant to the Conservancy from the Santa Clara Valley Water District, to the California Invasive Plant Council for the planning, management, treatment, monitoring, and restoration activities of the San Francisco Estuary Invasive Spartina Project from 2023-2024. This authorization will allow the Conservancy to provide additional funding to support the treatment and revegetation activities of the San Francisco Estuary Invasive *Spartina* Project (ISP) consistent with the Conservancy authorization based on the staff recommendation of June 18, 2020 (Exhibit 3). Since the June 2020 authorization, the Conservancy and California Invasive Plant Council (Cal-IPC) have secured additional grant awards including: a \$4,000,000 grant from the San Francisco Bay Restoration Authority, a \$1,000,000 grant from the USFWS National Coastal Wetlands Conservation Program, and a \$400,000 grant from the Santa Clara Valley Water District (SCVWD). The funding from the SCVWD is part of a five-year

Memorandum of Understanding with the Conservancy that was signed in January 2018, subject to annual approval by the governing body of SCVWD appropriating and awarding each year's funding. \$600,000 of these funds were approved in the March 2018 and May 2019 staff recommendations (referenced in Exhibit 3). This request includes authorization to disburse an additional \$400,000 for a total of \$1,000,000 authorized.

Staff currently estimates that the Conservancy and SCVWD grant funds listed in this staff recommendation, totaling \$5,400,000, is the minimum that will be needed to meet all ISP activities from April 2023 through June 2024. All funds authorized in June 2020 are expected to be fully expended as of March 2023.

The ISP has conducted all activities as planned under the 2020 authorization, including successful annual invasive Spartina monitoring and treatment seasons in 2019-22, annual rail monitoring in 2021-22, and habitat enhancements in winters 2020-21 and 2021-22, including construction of 20 high tide refuge islands and propagation and outplanting of 50,000 native plants. Winter 2022-23 plantings of 20,000 additional native plants are underway now. The amount of invasive Spartina during the 2020-22 period increased to 38 net acres baywide in 2020 but decreased to 22 net acres in 2021. The increase was due in major part to expansion of invasive Spartina at the 11 sub-areas that had been partially or fully restricted from treatment by USFWS from 2011-22 due to concerns over California Ridgway's rail (increase of 10 net acres). Conservancy staff and project contractors were allowed increased treatment at seven of the eleven sub-areas from 2018-2022, resulting in reestablishing a baywide decrease of invasive Spartina through careful phased treatment and revegetation activities. The total net acreage remains at a low amount of 22.5 net acres as of 2021 monitoring, with 82% of that in the previously restricted areas. The majority of areas now have either zero detection or less than 10 square meters of invasive Spartina remaining. This represents substantial progress in preserving native biodiversity and climate resilience in San Francisco Bay marshes despite the restricted sites and drought issues.

Additionally, the Conservancy and USFWS made substantial progress on permitting for previously restricted sites in 2018. The USFWS Bay-Delta office transferred the lead role on the Section 7 Endangered Species consultation to the Don Edwards San Francisco Bay National Wildlife Refuge (Don Edwards Refuge), the federal lead on the project, which issued a five-year permit covering treatment from 2018-22 and reduced the number of restricted sites to four locations. The Conservancy and Don Edwards Refuge are working closely with affected landowning partners and key stakeholders from 2018-2022 to implement phased treatment at the seven previously restricted areas now authorized for treatment, and this work has resulted in a 75% reduction of invasive *Spartina* at these sites in addition to revegetation plantings and high tide refuge islands that are successfully growing and expanding native habitat and high tide refugia for rails and other species. Conservancy and Don Edwards Refuge staff are in consultation to plan for future increased phased treatment from 2023-2025.

The project is intended to be implemented from April 1, 2023 – June 30, 2024. The project consists of the following components:

- Project Management: Cal-IPC, along with SCC, will oversee planning and management of the project, coordinate partners, and oversee work by contractors including lead contractor Olofson Environmental, Inc. (OEI).
  - a) Cal-IPC will implement outreach on behalf of the Invasive Spartina Project, including email updates on the project to 200 organizations and contacts in the region, presentation to Weed Area Management meetings in nine counties across the Bay Area, building and maintaining a new project website, and coordinating presentations for conferences and community groups.
  - b) Cal-IPC will hire a budgeting and project/grants management contractor to assist the project in planning and tracking complex budgets, and also assisting with funding strategy and grant proposals.
- 2) Invasive *Spartina* Monitoring and Treatment:
  - a) Invasive *Spartina* will be located and mapped, and a select sample will be genetically sequenced each year to inform treatment operations for the following season.
  - b) Herbicide will be applied directly on occurrences of invasive *Spartina* by OEI and additional licensed professionals contracted by Cal-IPC in accordance to established and permitted protocols.
- 3) Revegetation: A local native plant nursery will be contracted to grow native marsh plants, and environmental contractors will outplant up to 15,000 of these seedlings at selected tidal marsh locations during the winter seasons.
- 4) Rail Monitoring: OEI and Point Blue Conservation Science (Point Blue) will conduct annual call count surveys for rail at key marsh locations.

**Site Description and Background:** The funding in this authorization will fund all planning, implementation, and monitoring within 12 ISP regions throughout the 70,000-acre project area, according to detailed plans developed by the ISP, and the propagation and installation of up to 15,000 native tidal marsh seedlings during the winter season of 2023-24.

Grant Applicant Qualifications: Cal-IPC is a 501(c)(3) non-profit organization that works to reduce invasive plants in California. They are a state leader in advancing state policy and coordination on invasive plant issues, including coordination and leadership for quarterly statewide management calls with multiple agencies, as well as leading a successful annual conference that brings together hundreds of practitioners and agency staff engaged in invasive plant prevention and control. Cal-IPC has also developed and led successful workforce development trainings with regional landowners and resource agency staff for four local Conservation Corps (San Francisco, San Jose, Civicorps in East Bay, and North Bay Conservation Corps). These trainings directly engaged underserved and diverse youth and adults from impacted frontline communities, and resulted in increased awareness of estuary ecology, tidal wetland habitats, and invasive species impacts and control mechanisms. They have a strong track record in invasive plant work; see Project Letters for more information and support for this organization (Exhibit 6).

#### CONSISTENCY WITH CONSERVANCY'S PROJECT SELECTION CRITERIA & GUIDELINES:

The proposed project is consistent with the Conservancy's Project Selection Criteria, last updated on September 23, 2021, in the following respects:

## **Required Criteria**

1. Extent to which the project helps the Conservancy accomplishes the objectives in the Strategic Plan.

See the "Consistency with Conservancy's Strategic Plan" section below.

2. Project is a good investment of state resources.

This project is a good investment of state resources because it protects the baywide investment in native tidal wetlands restoration made by the Conservancy and many partners. Invasive *Spartina* invades both tidal mudflats and marshes and scientists have documented changes in the physical structure and plant communities in these habitats, and the resulting degradation of biodiversity and habitat values for native species. Eradication is necessary for this particular plant because of its ability to hybridize, spread quickly, and re-infest previously treated areas. The project is also developing and implementing restoration planting designs to expedite the recovery of treated areas while simultaneously enhancing habitat for wildlife (see "Project benefits will be sustainable or resilient over the project lifespan" below).

The project advances statewide goals and is consistent with regional plans including:

- a. **San Francisco Estuary Blueprint (2022 update):** The project achieves Action 15-5 to reduce total acreage of invasive species cover, Action 15-4 to implement early detection techniques such as DNA sampling, Action 15-1 to implement outreach through pertinent networks, and Action 11-1 to enhance or restore marshes and adjacent uplands.
- b. **USFWS** Recovery Plan for Tidal Marsh Ecosystems of Northern and Central CA (2013): The plan addresses the federally endangered California Ridgway's rail and salt marsh harvest mouse, as well as several plant species present in the Estuary. The proposed project supports objectives through treatment of invasive Spartina and habitat enhancements such as replanting natives and high tide refugia that will benefit these endangered species as sea level rises.
- c. San Francisco Bay Conservation and Development Commission's Coastal Management Program. The Project is consistent with the San Francisco Bay Conservation and Development Commission's "San Francisco Bay Plan": Fish, Other Aquatic Organisms and Wildlife Policies 1 and 2 by removing invasive *Spartina* which protects tidal marsh and mudflats and native marsh plant revegetation. It is consistent with Tidal Marshes and Tidal Flats Policies 1 and 6 by protecting and restoring native tidal marsh and flat and by having a biological monitoring program in place for native vegetation and rail.
- d. San Francisco Bay Joint Venture's (SFBJV) Implementation Strategy (2022). This project's goals are consistent with the SFBJV's work to protect, restore, increase and

enhance wetlands and mudflats throughout the SF Bay region to benefit birds, fish and other wildlife. The project is located entirely within SFBJV's boundary and invasive Spartina eradication is on SFBJV's list of adopted projects.

The project is feasible to implement because it has strong landowner, stakeholder, and technical input and engagement, and experienced field staff who have worked on the project through multiple phases of the project. The budget is reasonable, considering the strong focus on on-the-ground field work covering 70,000 acres in nine counties, regular permit agency and endangered species consultations, and the necessary communications and trainings with contractors and local community partners. The project leverages non-state resources from the Santa Clara Valley Water District, and protects past substantial leverage of local, state, federal, and private funds (see Project Financing below).

## 3. Project benefits will be sustainable or resilient over the project lifespan.

Project benefits include enhancement of marsh-upland transition zone habitat and high tide refuge for state and federally listed endangered species including the Ridgway's rail, and other key marsh species in the San Francisco Bay. This work is a critical piece of ongoing landscape-scale restoration, led by the Conservancy and USFWS over several decades, to reestablish tidal exchange to thousands of acres of former commercial salt ponds and agricultural lands (other key restoration efforts led by the Conservancy) and other diked wetlands to restore natural fish and wildlife habitat and water quality functions. Establishing native plants in the tidal marsh and adjacent transitional habitat will provide essential foraging, nesting, breeding, and high tide refuge habitat for the Ridgway's rail and other avian species and enhance ecosystem functions for the benefit of many other tidal marsh dependent wildlife. Established plantings will spread vegetatively and by seed into suitable tidal zones and will provide seeds and propagules throughout the marsh and region by transport on the tides, thus enriching and enhancing the marsh ecosystem in perpetuity.

Eradication of invasive *Spartina* will protect vast areas of recent tidal restoration that was funded, in part, by the Conservancy, including Hamilton Field, Cullinan Ranch, Sears Point, South Bay Salt Ponds, Dotson Family Marsh, and many other sites. It will also greatly reduce the likelihood that non-native *Spartina* propagules will disperse beyond the Golden Gate, to potentially re-infest Point Reyes National Seashore or other coastal tidal marshes.

#### 4. Project delivers multiple benefits and significant positive impact.

The project is protecting 70,000 acres of tidal wetland and mudflat habitat in the San Francisco Estuary, a globally important estuary and the largest on the west coast. Healthy, native tidal wetland and mudflat habitat will provide valuable green infrastructure that functions as resilient nature-based shoreline protection in the face of sea level rise and a predicted increase in storm events and flooding.

In addition, this project helps to advance the planning and protection of natural resources and shorelines in San Francisco Bay and provides a model for coordinated landowner actions to address invasive species in a robust approach linking GIS mapping, careful mapping and treatment, and revegetation enhancements in other cities and counties. The project partners include multiple non-profits, small businesses including women-owned small businesses, local

consulting firms and contractors, and engagement with local landowners and community groups. The innovative techniques included in the project are already being applied to multiple large scale wetland restoration projects in the region, providing additional impetus for conservation. The Conservancy has met with project managers to share information about the invasive mapping and native revegetation techniques, and there is substantial current coordination and ongoing action by other parties to include project revegetation design ideas in current and future restoration and climate change adaptation planning.

## 5. Project planned with meaningful community engagement and broad community support.

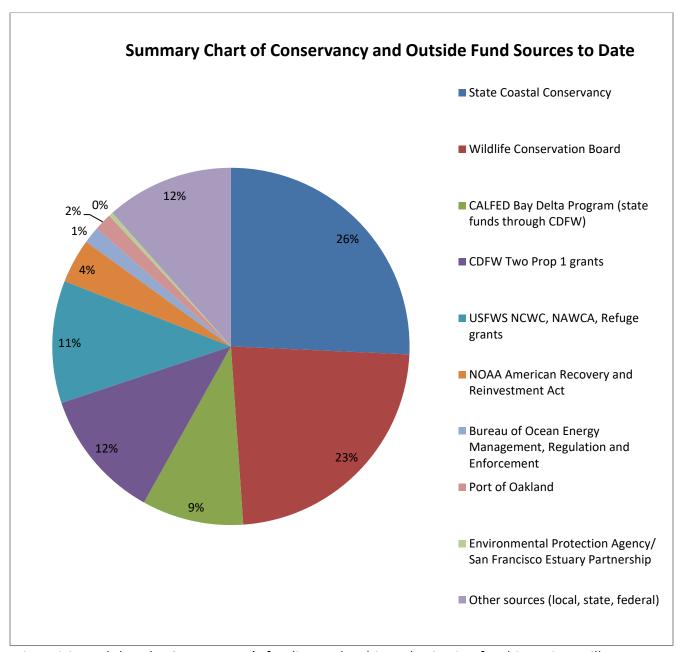
The project includes substantial education and outreach with a broad network of resource agency staff, restoration practitioners, and landowners around San Francisco Bay. The project's goal is to share results from the project with multiple agency staff and other project managers, to increase environmental awareness so that these techniques can be incorporated into multiple restoration projects to enhance endangered species habitat and high tide refugia. There are more than 50 landowning and agency partners who are benefitting from the project's demonstration of best techniques to enhance high quality Ridgway's rail habitat through targeted revegetation and high tide refuge island construction. The project areas are largely inaccessible to the general public and the techniques require technical training and certification to work in endangered species habitat. Despite these caveats, the project continues to work with partners to ensure that the public is notified about the activities occurring in the area, and to share the reports and research from the project widely.

During the project, the Conservancy and Cal-IPC will:

- a. Regularly share data and updates on the status of project work with ~200 landowners and resource management agency contacts involved in managing the total 70,000 acres.
- b. Provide updates on ISP progress at Weed Management Area meetings in counties across the Bay Area.
- c. Present project results and recommendations at two regional conferences and forums (e.g., State of the Estuary, CA Invasive Plant Council statewide conference).
- d. Conduct outreach to five non-profit partners including Golden Gate Audubon, Save The Bay, and others to include information about these activities in their environmental education programs and at local interpretive centers including San Leandro Bay, HARD Interpretive Center, Eden Landing Ecological Reserve, and the Don Edwards San Francisco Bay National Wildlife Refuge's two nature centers adjacent to the project areas.

#### **PROJECT FINANCING**

Coastal Conservancy \$5,000,000
Santa Clara Valley Water District \$400,000
Proposed Authorization Total \$5,400,000



It is anticipated that the Conservancy's funding under this authorization for this project will come from an FY22/23 appropriation of General Funds to the Conservancy for the Climate Ready Program, \$30M of which shall be available for projects in the San Francisco Bay Area, for nature-based projects to address sea level rise. The proposed authorization qualifies for use of these funds because it will support climate resilience in all nine counties through restoration and enhancement of native wetlands that help address extreme weather events, sea level rise (SLR), and flooding. This funding to a non-profit organization will protect and enhance native wetlands that support natural infrastructure providing multiple benefits including fish and wildlife enhancements and buffering bay shorelines against SLR and erosion, as well as recreational opportunities such as birdwatching and kayaking.

\$400,000 from SCVWD comes from Measure B under Priority D2, to "revitalize stream, upland and wetland habitat". SCVWD and the Conservancy have a multi-year Memorandum of Understanding (MOU) in place as of January 1, 2018 which includes up to \$1,000,000 for invasive *Spartina* mapping, treatment, native enhancement, and other activities in Santa Clara County. In March 2018, the Board authorized the first installment of \$200,000, and in May 2019 approved disbursement of an additional \$400,000. This authorization requests approval to disburse the remaining \$400,000. Measure B identified the funding of community partnerships as a key means to achieving the benefits of Priority D2. Those benefits include improved habitat by installing tidal and riparian plant species, improved ecological function of existing riparian and wetland habitat so it can support more diverse wildlife species, and increased community awareness about the damaging impact that non-native, invasive plants have on local ecosystems. SCVWD awarded the funds specifically for the ongoing implementation of the Invasive *Spartina* Project starting in 2018, and in 2020 amended the agreement to allow the money to be spent over 3 additional years, including the planning, coordination services, treatment, eradication and revegetation projects described above.

#### CONSISTENCY WITH CONSERVANCY'S ENABLING LEGISLATION:

The project is consistent with Chapter 3 of Division 21, specifically Section 31113 which authorizes the Conservancy to address the impacts and potential impacts of climate change on resources within the Conservancy's jurisdiction (Section 31113(a)).

Pursuant to Section 31113(b) and (c), the Conservancy is authorized to award grants to nonprofit organizations and public agencies to undertake Climate Ready projects, including those that address extreme weather events, sea level rise, flooding, and other coastal hazards that threaten coastal communities, infrastructure, and natural resources.

Pursuant to Section 31113(c), the Conservancy must prioritize grants for projects that maximize public benefits and have one of several purposes, including preserving and enhancing natural lands, conserving biodiversity, and providing recreational opportunities.

Consistent with these sections, the proposed project will restore the health and resilience of San Francisco Bay's tidal wetlands and mudflats. The project will help San Francisco Bay wetlands and shorelines to be more resilient to sea level rise and buffer against erosion due to climate change. Healthy wetlands provide recreational opportunities for activities including birdwatching and kayaking.

The proposed project addresses resources within the Conservancy's jurisdiction by implementing this project with landowning partners in all nine Bay Area counties to protect and enhance tidal marshes and mudflat habitat of regional importance in San Francisco Bay (Chapter 4.5 of Division 21 of the Public Resources Code).

# CONSISTENCY WITH CONSERVANCY'S 2023 STRATEGIC PLAN GOAL(S) & OBJECTIVE(S):

Consistent with the objectives listed below for the Conservancy's 2023-27 Strategic Plan, the proposed project will further the Invasive *Spartina* Project by continuing progress towards zero-detection and promoting monitoring and management by landowners and other partners.

Consistent with Goal 3 Protect and Restore the Coast, Objective 3.2 Restore or Enhance Habitats, the proposed project will prioritize restoration projects on degraded landscapes and waterways most important to protecting biodiversity and restoring natural systems, through restoring and enhancing native tidal marshes and mudflats in San Francisco Bay, by removing invasive *Spartina* which threaten the ecological functions of tidal marsh and decrease biodiversity of native tidal marsh species.

Consistent with Goal 4 Climate Ready, Objective 4.1 Sea Level Rise Adaptation Projects, the proposed project will plan and implement native revegetation projects in San Francisco Bay, advancing the planning and design of adaptation projects to increase resilience to sea level rise and other climate change impacts. Consistent with Objective 4.3 Multi-benefit Nature-based Climate Adaptation, the treatment of invasive *Spartina* and revegetation of native *Spartina* will protect tidal marshes and mudflats, which act as green infrastructure and help to improve water quality, sequester carbon, promote biodiversity, reduce shoreline erosion, and increase wave attenuation and shoreline protection in San Francisco Bay particularly in urban settings.

## **COMPLIANCE WITH CEQA:**

As detailed in the June 18, 2020 Conservancy staff recommendation (Exhibit 3), at its June 16, 2005 meeting, the Conservancy authorized initial funding for treatment and eradication of invasive *Spartina* at 22 project sites and certified a "Final Programmatic Environmental Impact Statement/Environmental Impact Report, San Francisco Estuary Invasive *Spartina* Project: *Spartina* Control Program" (FEIS/R), prepared for the ISP pursuant to the California Environmental Quality Act (CEQA). Subsequently, the Conservancy has authorized funding for treatment and eradication projects each year through 2022. In general, over the duration of the ISP, the nature, duration, scope, location and site characteristics of treatment has not changed. Over time, some additional sites and sub-areas have been added as new plants were found but treatment and potential impacts have been reduced because of successful treatment in prior years.

The FEIS/R is a programmatic environmental impact report (Section 15168 of the CEQA Guidelines, 14 Cal. Code of Regulations, Sections 15000 et seq., hereafter "Guidelines") in that it analyzes the potential environmental effects of implementing the ISP as a whole, rather than the effects of any one or more individual treatment and eradication projects. The program-level FEIS/R identifies mitigation measures that will be applied to reduce or eliminate impacts at various treatment locations, under varying site characteristics and conditions, and using varying methods of treatment.

A subsequent activity that follows under a programmatic environmental impact report that has been assessed and certified pursuant to CEQA (such as the FEIS/R) must be examined in the

light of that programmatic report to determine whether an additional environmental document must be prepared. If the agency proposing the later activity finds that the environmental impacts of the later activity and the required mitigation to reduce those impacts were already identified and considered under the programmatic environmental report, the activity can be approved with no further environmental documentation. (CEQA Guidelines, Section 15168(c)). The Guidelines suggest the use of a written checklist or similar device to document the evaluation of the activity to determine whether the environmental effects of the operation were covered in the programmatic environmental impact report.

Whenever additional funding for the ISP treatment has been sought, Conservancy staff has assessed the proposed treatment using, as the "checklist" suggested by the CEQA Guidelines, site specific plans for each treatment site and mitigation matrices to identify the impacts and required mitigation needed to avoid or reduce those impacts. Based on that information, the Conservancy has concluded in each instance that the environmental effects associated with proposed treatment and the required mitigation to reduce those effects to less than significant level had been fully considered under the FEIS/R. For purposes of 2023-2024 treatment under this proposed authorization, staff has reached the same conclusion.

For purposes of the 2023-24 treatment seasons and subsequent years, the nature, duration, scope, location and site characteristics of the proposed treatment and control work have not changed. Eradication and control efforts will continue in the same areas as in 2019-2022, but at a decreased intensity because of the reduction in invasive Spartina removed in 2019-2022. Four additional sub-areas (10,000 acres) have been added in Suisun Bay due to a limited number of Spartina plants found in 2016. These new sub-areas were fully analyzed as part of the 2021 annual review, and they were not found to involve any changed circumstance, impacts or required additional mitigation beyond those assessed in the FEIS/R. Thus, the original 2003 matrix of impacts and mitigation measures continues to apply to and fully detail the impacts and needed mitigation measures for the activities to be undertaken in 2023 and subsequent years under the new funding proposed by this staff recommendation. The matrix also serves to demonstrate that, since there are no new activities and the project remains essentially unchanged, the proposed treatment and control activities in 2023 and, in subsequent years, will involve only those potential impacts previously identified by the FEIS/R and will not require any new or different mitigation beyond that required by the FEIS/R to avoid or reduce those potential impacts.

Since the project activities proposed for funding under this authorization, including the potential environmental impacts and required mitigation measures, remain unchanged, the proposed authorization remains consistent with the CEQA findings adopted by the Conservancy in connection with the June 16, 2005 authorization for the 22 original treatment sites and with subsequent Conservancy findings made in connection with authorizations for treatment at the new sites added over the years. No further environmental documentation for these treatment activities is required under CEQA.